



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,305	10/05/2006	Michiaki Fuji	2158100360US1	9563

30678 7590 04/17/2007
CONNOLLY BOVE LODGE & HUTZ LLP
P.O. BOX 2207
WILMINGTON, DE 19899-2207

EXAMINER

LISTVOYB, GREGORY

ART UNIT	PAPER NUMBER
----------	--------------

1711

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/573,305

Applicant(s)

FUJI, MICHIAKI

Examiner

Gregory Listvoyb

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/16/2006</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

Claims 1-5, 10-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Hanazawa et al (US patent 6066711) herein Hanazawa in combination with Mitsuhita et al (JP publication 08-041303) herein Mitsuhisa.

Hanazawa discloses an optical polyester polymer, based on 9,9-bis[4-(2-hydroxyethoxy)phenyl]fluorene (preferred, Column 7, line 45) and alicyclic compound, selected from the following:

cyclohexanedicarboxylic acid, decalindicarboxylic acid, norbornanedicarboxylic acid, adamantanedicarboxylic acid and tricyclodecendicarboxylic acid (Column 4, line 30).

Hanazawa does not disclose a second component of the composition, such as aromatic polycarbonate.

Mitsuhisa teaches a resin composition for optical lenses, comprising polyester, based on 9,9-bis[4-(2-hydroxyethoxy)phenyl]fluorene (line 0015) and aromatic polyester with blending ratio from 5:95 to 90:10 (line 0013). Mitsuhisa discloses that the above blend possesses all the advantages of polyesters and polycarbonate, such as good

Art Unit: 1711

transparency, moisture resistance, mechanical properties, low birefringence and lower cost (compare to a sole polyester). (line 007).

Therefore, it would be obvious to a person with ordinary skills in the art to use polyester/polycarbonate blend instead of sole polyester to obtain an excellent optical composition at relatively low cost.

Claims 1-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsuhiwa in combination with Hanazawa as evidences by Mitsuaki et al (JP publication 11-060706) herein Mitsuaki.

Mitsuhiwa teaches a resin composition for optical lenses, comprising polyester, based on 9,9-bis[4-(2-hydroxyethoxy)phenyl]fluorene (line 0015) and aromatic polyester with blending ratio from 5:95 to 90:10 (line 0013). Mitsuhiwa discloses that the above blend possesses all the advantages of polyesters and polycarbonate, such as good transparency, moisture resistance, mechanical properties, low birefringence and lower cost (compare to a sole polyester). (line 007):

Regarding Claims 6-10 and 15-20 Mitsuhiwa discloses melt kneading processing of the composition (line 0020) with addition of trimethyl phosphate as a heat stabilizer (line 0035).

Mitsuhisa's polyester does not contain alicyclic dicarboxylic acid (instead he uses terephthalic acid).

Hanazawa discloses an optical polyester polymer, based on 9,9-bis[4-(2-hydroxyethoxy)phenyl]fluorene (preferred, Column 7, line 45) and alicyclic dicarboxylic acid.

Mitsuaki teaches an optical polyester polymer, based on 9,9-bis[4-(2-hydroxyethoxy)phenyl]fluorene (preferred, Column 7, line 45) and alicyclic diacid (Abstract). He discloses that compare to alicyclic acid, terephthalic one in the polyester composition leads to high birefringence.

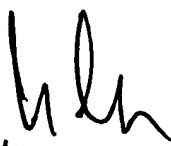
Therefore, it would be obvious to a person with ordinary skills in the art to use polyester based on alicyclic dicarboxylic in polyester/polycarbonate blend to obtain better birefringence values.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Listvoyb whose telephone number is (571) 272-6105. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gregory Listvoyb
Examiner
Art Unit 1711



James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700